



## 1. Scope

To assess the performance of the alternative manhole platform system (AMPS) product manufactured by Racolin Ltd. This is a pre-fabricated GRP platform that is fitted in manholes and provides a working area for personnel as an alternative to traditional concrete benching. This is one material in a suite of products, see Assessment Schedule PT/241/0305 for galvanised steel and stainless steel.

It is to be used in storm water systems only (not combined or foul), fitted above the soffit of the sewers for use as a working platform during man-entry work. The platform has hinged hatches that can be opened in order to gain access below. The intended benefits for users of this product are improved health and safety for working in manholes and the removal of the need for a platform on the concrete benching thereby potentially reducing the required manhole diameters.

This schedule covers the following assessment areas in order to prove the “fitness for purpose” of this product:

- 2.1 product type testing;
- 2.2 audit of the production quality control systems;

Other aspects of the assessment, including installation and operations, common to all types of materials are in AS PT/241/0305.

The platform systems shall meet the requirements of Sewers for Adoption<sup>(1)</sup> and CESWI<sup>(2)</sup>.

## 2. Type testing

The product that is tested shall be a sample produced using the manufacturing process being used or intended to be used for the working versions.

The AMPS frames were designed according to Design Calculations, job ref 04-3209<sup>(3)</sup>, Steve Hunt Partnership. Therefore the GRP grating have to be designed for General Duty loading in BS 4592-4 (5.0 kN/m<sup>2</sup> uniformly distributed load, 1.0 kN concentrated load and a safety factor of 1.6) and the loading on the frame and wall fixings is 3 kN/m<sup>2</sup> (1 kN/m<sup>2</sup> dead load and 1 kN/m<sup>2</sup> live load and corresponding factors of safety of 1.4 and 1.6).

A proof loading test shall be undertaken to demonstrate that the total design live loadings of 1.6 kN/m<sup>2</sup>, acting over the whole platform area can be achieved without any damaging effects to the structure and while maintaining serviceability.

The proof loading shall be undertaken on a platform supported in accordance with the product's installation instructions.

One size of platform has to be proof loaded; it shall be 1800 mm in diameter or larger. Each platform material type has to be individually tested (mild steel and stainless steel require separate testing).

## 3. Production quality audit

An audit of the production quality control systems procedures of the Manufacturer shall be undertaken and a visit to the manufacturing premises



made to witness the production process. The quality control records for the platform manufacture process shall be checked.

All processes and materials used in the manufacture shall be in accordance with Sewers for Adoption and CESWI requirements for manhole fittings (note: GRP gratings shall comply with BS 4592-4<sup>(4)</sup>).

#### 4. References

1. Sewers for Adoption 5<sup>th</sup> Edition, WRc July 2001;
2. Civil Engineering Specification for the Water Industry 6<sup>th</sup> Edition, WRc June 2004.
3. Design Calculations, job ref 04-3209, Steve Hunt Partnership 22 August 04.
4. BS 4592-4: 1992, Industrial type flooring, walkways and stair treads – Part 4: Specification for glass reinforced plastics open bar gratings.